



Placing the future at the forefront

Libby Chaplin
CEO, Battery Stewardship Council

WasteMINZ Conference, NZ
29 May 2024

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Who is the Battery
Stewardship Council
& B-cycle?

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Why does battery
stewardship
matter?

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How does B-cycle Work
and outcomes from our
first two years

4

What does the future of
B-cycle look like?

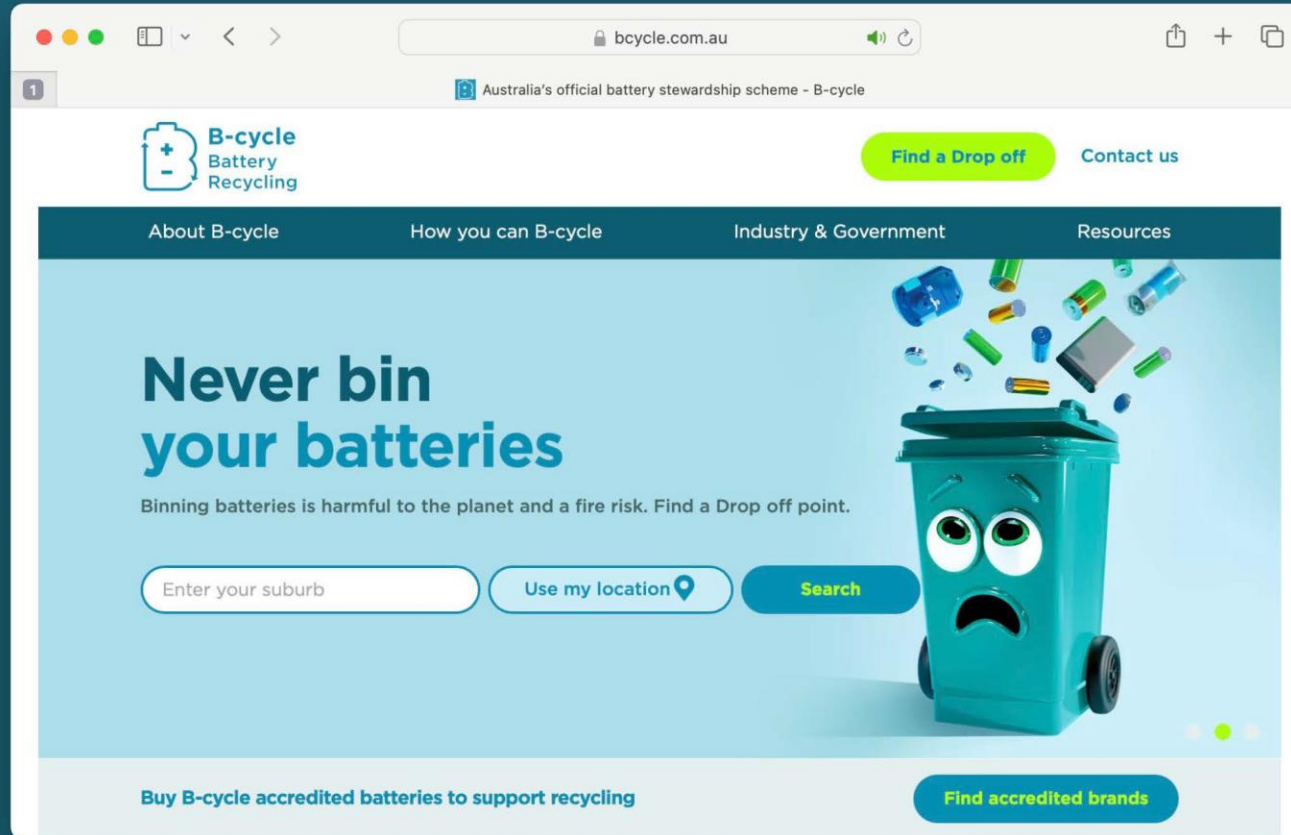
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What have we learned
that may inform
stewardship discussions
in New Zealand

6

Opportunities for
future collaboration
and partnership

Who are we?



- + **BSC is a Not for profit**
 - + Operates B-cycle scheme
 - + Handheld consumer batteries
 - + Launched in 2022
- + **Legal basis**
 - + Industry led
 - + Authorised by the ACCC
 - + Accredited by the Federal government as a voluntary product stewardship scheme
- + **Resources**
 - + Annual report, communications materials and procedures are available on the B-cycle website

BSC Board Directors represent the whole supply chain



INDEPENDENT



Gerry Morvell
BSC Board Chair



Margaret Donnan
Independent

IMPORTERS



Michael Brendle
Techtronic Industries



Mariusz Surmacz
Duracell



Jon Kirby
Energizer

RETAILERS



Peter Bruce
Woolworths



David Stout
National Retailers
Association

RECYCLERS



Ben Pritchard
Envirostream



Morgan Parker
Sell & Parker

BSC



Libby Chaplin
BSC CEO



Craig McIntosh
BSC CFO

Kirstyn Krausz
Executive Assistant



Libby Chaplin
Chief Executive Officer



Jade Barnaby
Director: Best Practice &
Innovation



Brett Buckingham
Director: Engagement
& Technology



Ana Paula Gomes
Sustainability Project
Coordinator



Craig McIntosh
Chief Finance Officer



Cara Delmas
Director:
Communications &
Sustainable Change



Melissa Twyford
Member Engagement Manager



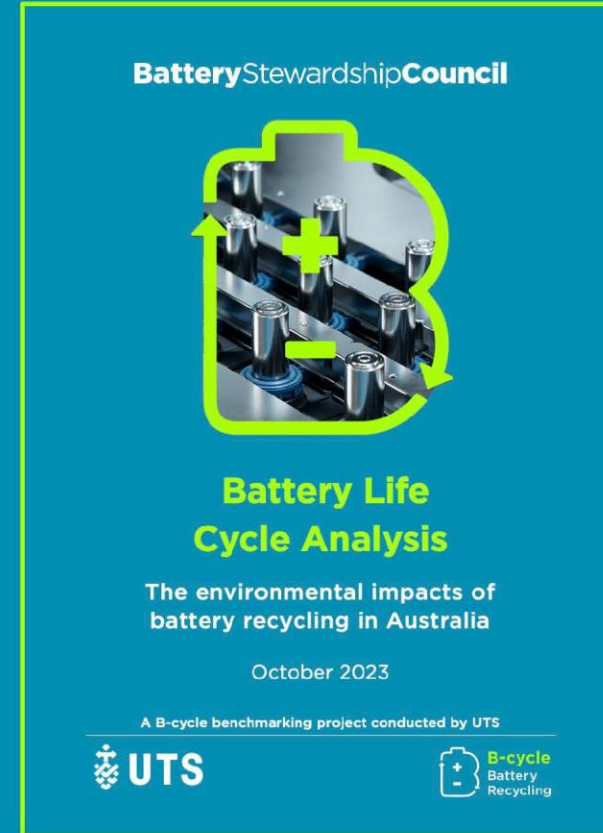
B-cycling matters

Importance of battery recycling for decarbonisation

Conducted by UTS and published on the B-cycle website ~ www.bcycle.com.au



**Battery
Stewardship
Council**



“Placing highly purified recycled materials from batteries onto the materials market has the potential to offset the CO₂e emissions of battery materials supply by around 50%.”

B-cycling matters

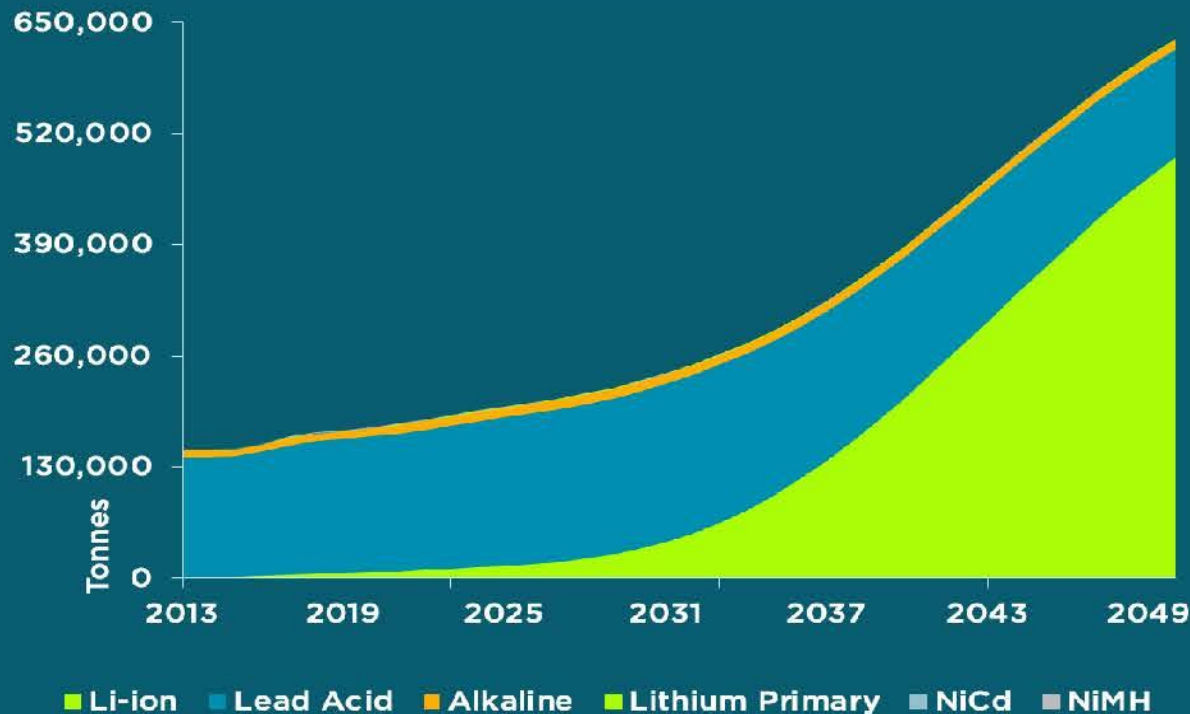
Button batteries



**20 children per
month are
presenting to
hospitals with
suspected Button
Battery injuries**

B-cycling matters

Exponential growth in battery sales



Report published: www.bcycle.com.au

BatteryStewardshipCouncil



Battery Market Analysis

The latest market data for the battery industry in Australia

October 2023

A B-cycle benchmarking project conducted by UTS



B-cycling matters

Lithium-ion battery fires

NSW Fire & Rescue data illustrates the escalation of LiB fires

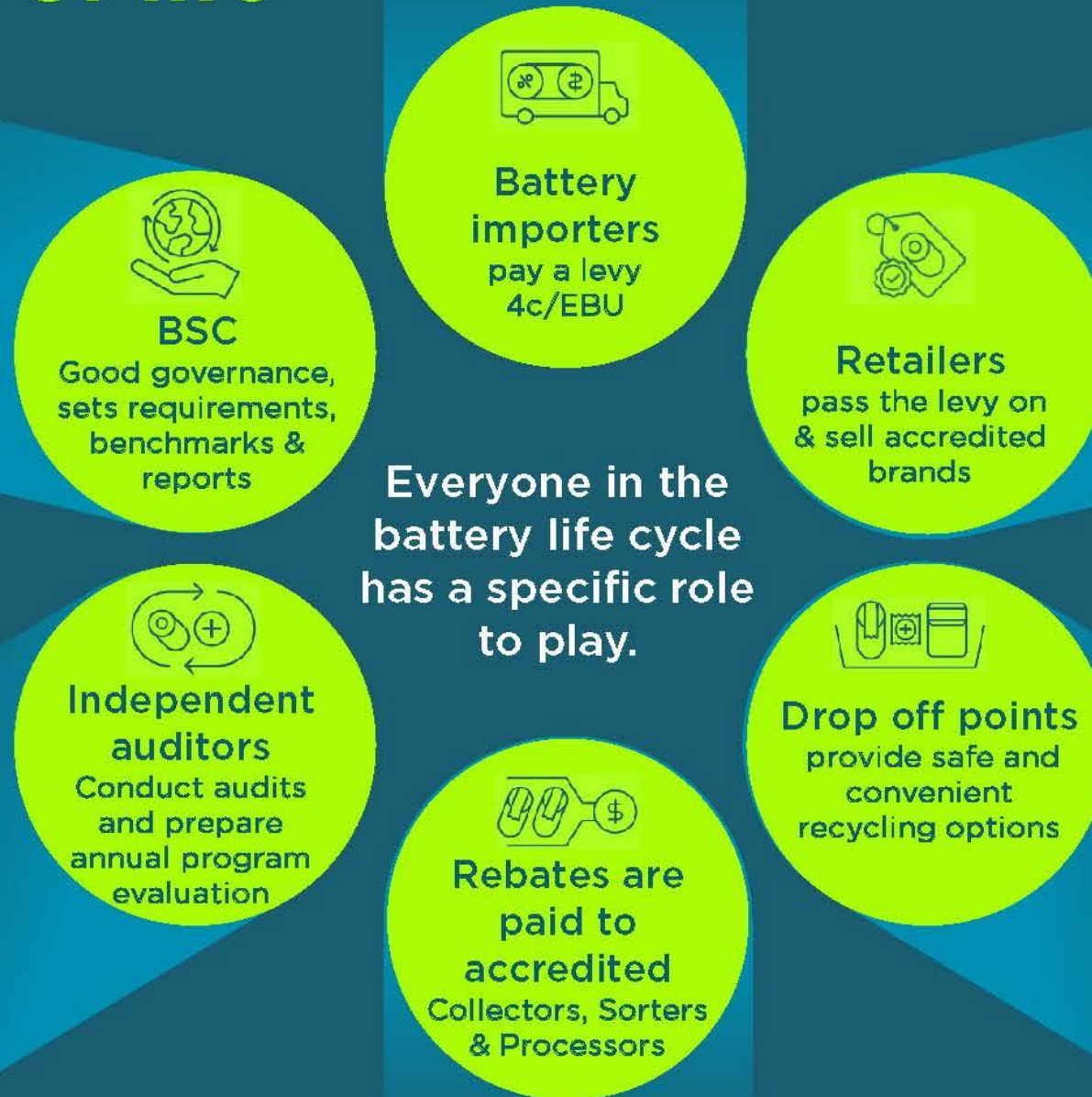
NSW F&R Report on Battery Fires	2022	2023	Increase
Lithium-ion battery incidents	171	285	60%
Injured persons	14	38	37%
Evacuations	829	1320	63%
Waste receptacles/collection	34	55	62%
Waste trucks	56	71	79%
Waste facilities	34	51	67%

The B-cycle of life

How it works



**Battery
Stewardship
Council**



Rebates

Metro Collection: \$2.50
Regional Collection: 3:50
Sorting \$1.00
Processing: \$1:00

New rebate categories proposed:

Incidental receiver: \$1.00
Remote Collection: \$6.50

Unique accreditation model with general & sector specific obligations



Importer



Retailer



Drop off points



Collectors



Sorters



Recyclers



Downstream vendors

Accreditation begins with the Battery Stewardship Commitment and the Drop off point Code of Practice.

- + Obligations are specific to the role in the battery supply chain.
- + Secures funding, enables education, improves safety and delivers transparency across the battery lifecycle,
- + Independent audits used to verify conformance and give assurance of minerals recovery from used batteries.

B-cycle Battery Recycling
ACCREDITED

B-cycle Scheme Commitment Form

As an accredited Battery Steward, we:

- agree to participate in the Scheme and abide by the general and specific obligations set out below;
- acknowledge that this commitment document is subject to approval, verification, and revocation by the BSC Board;
- support the objectives of the Battery Stewardship Scheme to:
 - increase resource recovery and recycling;
 - minimise the environmental, health and safety impacts of used batteries generated in Australia;
 - develop Australia's battery recycling industry and markets for battery-derived products.

General obligations for all Battery Stewards

As Battery Stewards we agree to:

- Give purchase and/or supply preference to other accredited B-cycle participants.
- Ensure that all used batteries are provided to B-cycle accredited battery collector for environmentally sound disposal.
- Give priority to the purchase of batteries manufactured in Australia.
- Instruct the Scheme to the community, other businesses, and organisations, and use B-cycle approved Scheme branding and logos as appropriate and adhere to the conditions that apply to that use.
- Comply with applicable other requirements, including B-cycle standards and procedures for quality, traceability, environmental, and work, health, and safety.
- Cooperate with random or risk-based audits as required by the BSC and with surveys undertaken from time to time.
- Retain and make accessible to the BSC records to demonstrate these obligations and related B-cycle procedures and guidance are being met.
- Give appropriate access to relevant records, for audit purposes as appropriate.
- Ensure that used batteries generated through our own operations are disposed of through accredited battery stewards.

Specific Accreditation Obligations for Supply Chain Battery Stewards

☒ Tick box for all the following categories your organisation is seeking accreditation for its role in the supply chain:

This Scheme is governed by the Australian Consumer & Competition Commission (ACCC) under the Australian Consumer & Competition Law. The B-cycle Scheme is a not-for-profit organisation and is not a government body.

Battery Stewardship Council

B-cycle Battery Recycling
ACCREDITED

B-cycle Drop off point Code of Practice & Battery Steward Commitment Form

It is important that B-cycle accredited Drop off points provide and maintain a safe, effective environment for disposal and recycling of used batteries. This Code defines your responsibilities as a B-cycle accredited Drop off point.

This form is for use by organisations that only provide Drop off points and do not import or retail batteries. There are additional responsibilities for those organisations. Email contact@bicycle.org.au if you are an Importer or Retailer seeking Drop off point accreditation.

Commitments

As a B-cycle accredited Drop off point, we agree to support the objectives of the B-cycle Scheme to:

- increase resource recovery and recycling;
- minimise the environmental, health and safety impacts of used batteries generated in Australia;
- develop Australia's battery recycling industry and markets for battery-derived products.

B-cycle general commitments

- Give preference to buying batteries, where appropriate, from B-cycle accredited brands and retailers that contain recycled content.
- Ensure all used batteries generated through your operations are disposed of through B-cycle accredited battery stewards.
- Provide the Scheme and B-cycle approved logo and branding in accordance with the B-cycle Style Guide.
- Comply with local and B-cycle requirements, including procedures for quality, traceability, environmental, and work, health, and safety.
- Retain and make accessible to B-cycle records to demonstrate these obligations and related B-cycle procedures and guidance are being met.
- Cooperate with random or risk-based audits as required by the BSC and with surveys undertaken from time to time.

Drop off point commitments

- Provide a safe Drop off point for batteries left by car users.
- Acknowledge that legacy batteries from stockpiles are not accepted in the vehicle without a prior consent.
- Ensure all used batteries received at the Drop off point go to B-cycle accredited Collectors, Sorters and Recyclers.
- Work with your Collector to ensure that the B-cycle logo and trackability system is used to accurately track batteries collected for recycling.
- Report fire and other significant incidents to the appropriate authorities and the BSC to enable a better understanding of the risks to improve collection systems.

Drop off point - Code of Practice

This Code states the reasons to this to both public and private B-cycle Drop off points.

Partner with a B-cycle accredited Collector

- B-cycle Drop off points are required to work with B-cycle accredited Collectors.
- B-cycle accredited Collectors will be able to advise you on the best method to use how to stay safe when to locate your bins and how to prepare for pick up.

What goes in the bin - stays in the bin!

To prevent injury or death by third parties of the public, ensure that only B-cycle accredited Collectors are permitted to collect the contents of batteries accredited drop off bins.

Fire safety first

By providing a battery drop off you are managing a small but real risk of fire. This risk can be reduced by:

- always using bins provided by your B-cycle Collector.
- consistently communicating to users of the bins about the importance of protecting battery terminals and not placing them in the bin.
- keeping the terminals of each individual battery terminal in keeping the battery value while using clear sticky tape non-conducting electrical or duct tape in a star to prevent sparking.
- not taping batteries together.

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Battery Stewardship Council

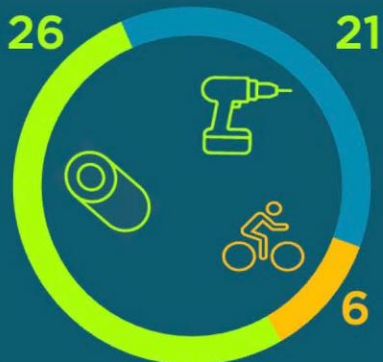


B-cycle foundation for success

53 

B-cycle accredited importers

Size of the battery market excluding lead acid:
25,000 Tonnes in total
20,000 currently in scope



31 Accredited
Retailers



\$FY 2024

3c/EBU to Dec
4/c EBU from Jan

\$14,457,415

Levies

\$12,739,590

Rebates

Impact of free riding



Conservative as it excludes online sales



\$22m

in rebates paid
since launch

B-cycle outcomes by the numbers



42,403

Battery Collections
in 2023



Over **4,500** tonnes or
190 million individual batteries
collected since launch in 2022



AU vs EU
Year 1 Collection rate

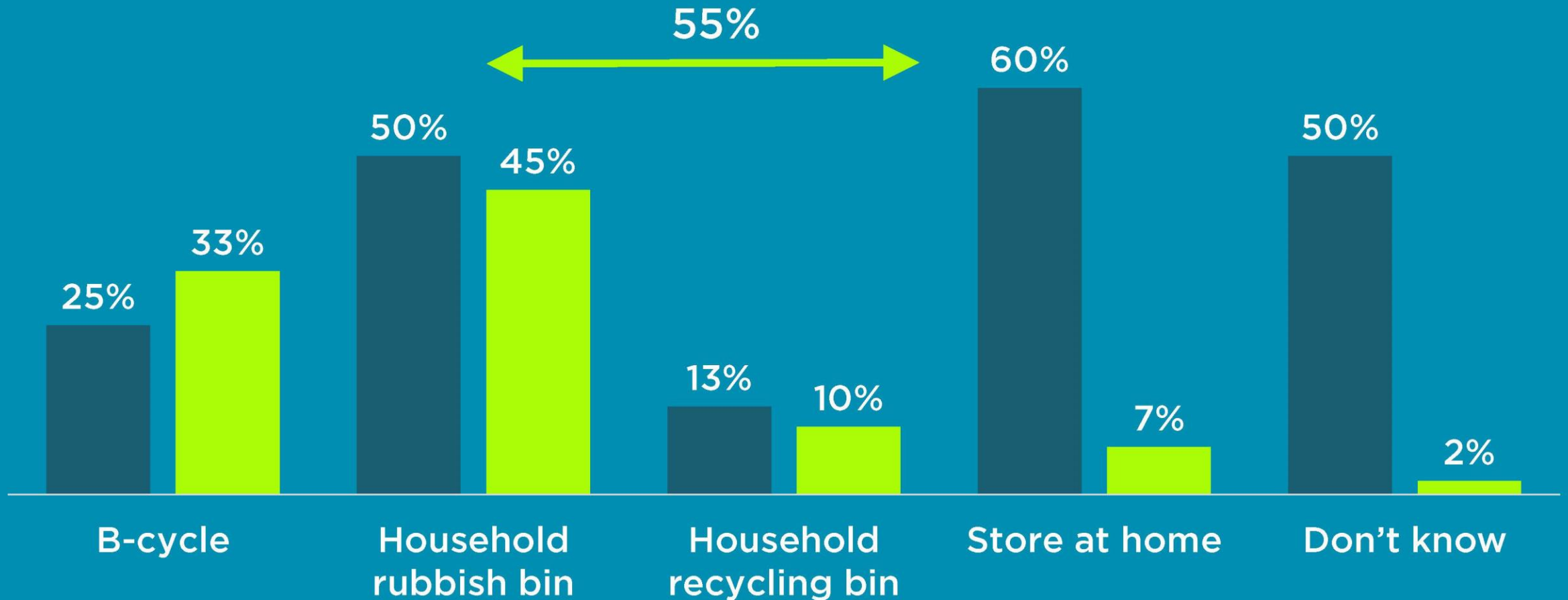


Collection Rate
(Year 2)

Need to change behaviour

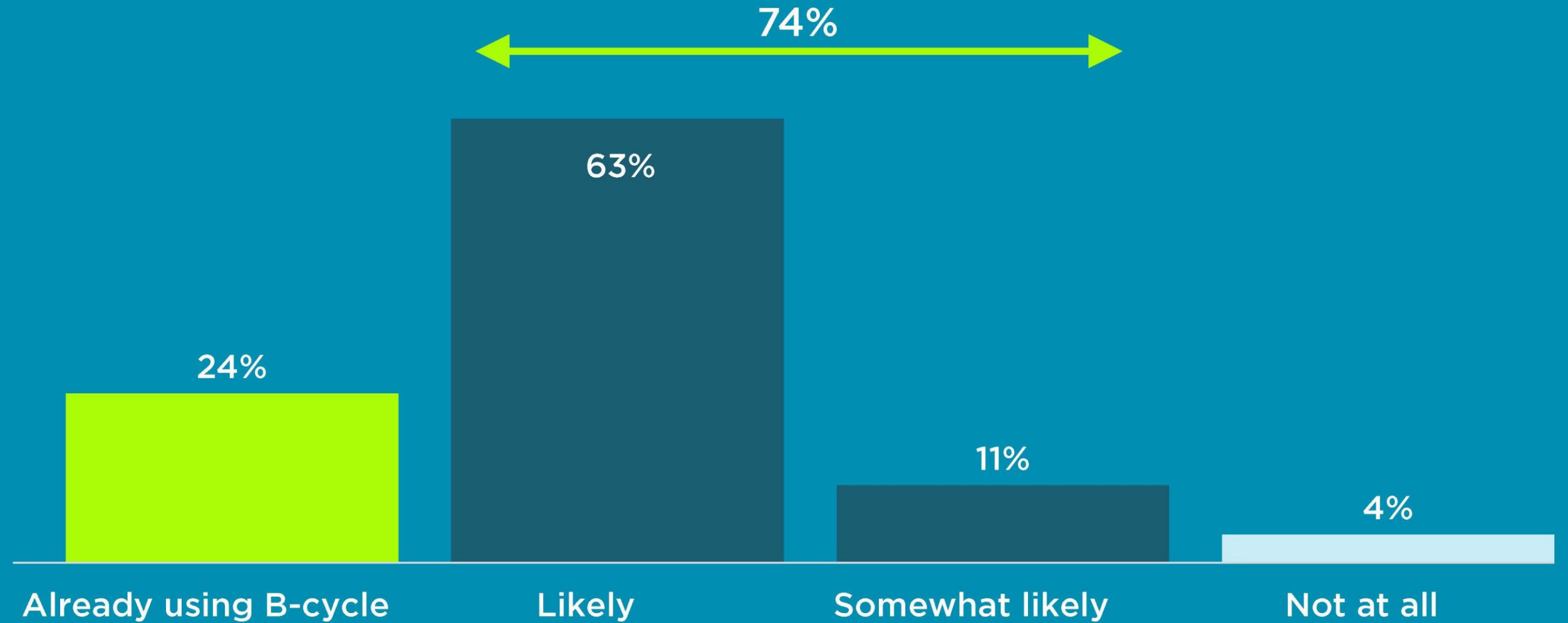
55% of Australians still think it is OK to put batteries in kerbside bins

■ 2021 ■ 2023



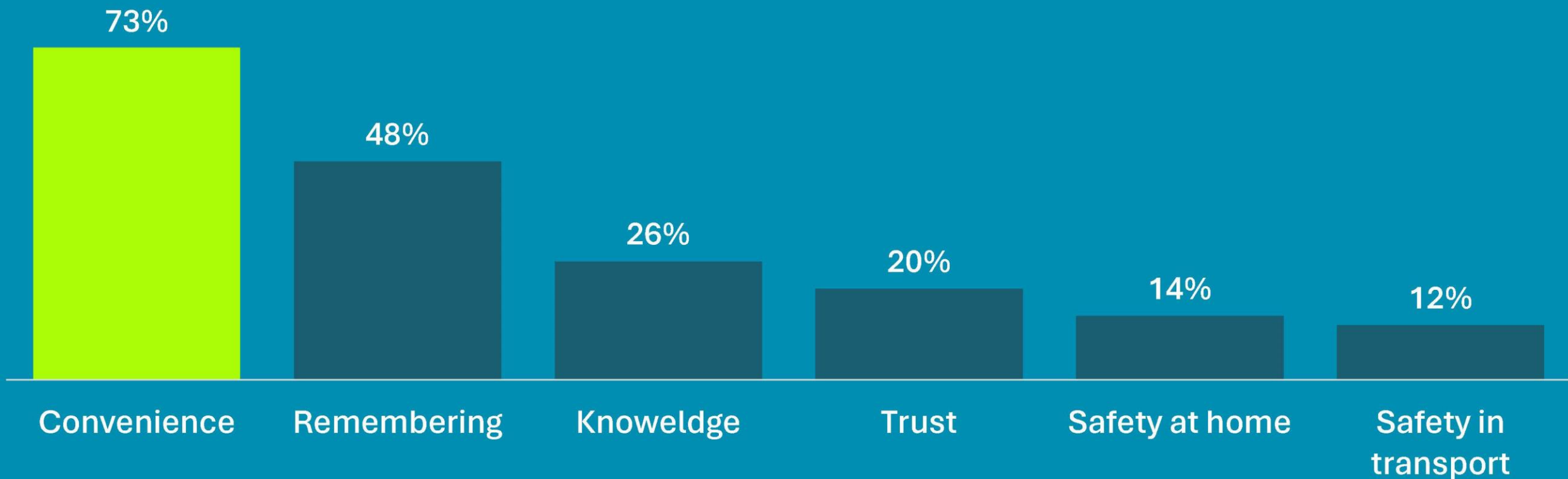


Consumers want to participate





What are the obstacles for consumers using B-cycle?



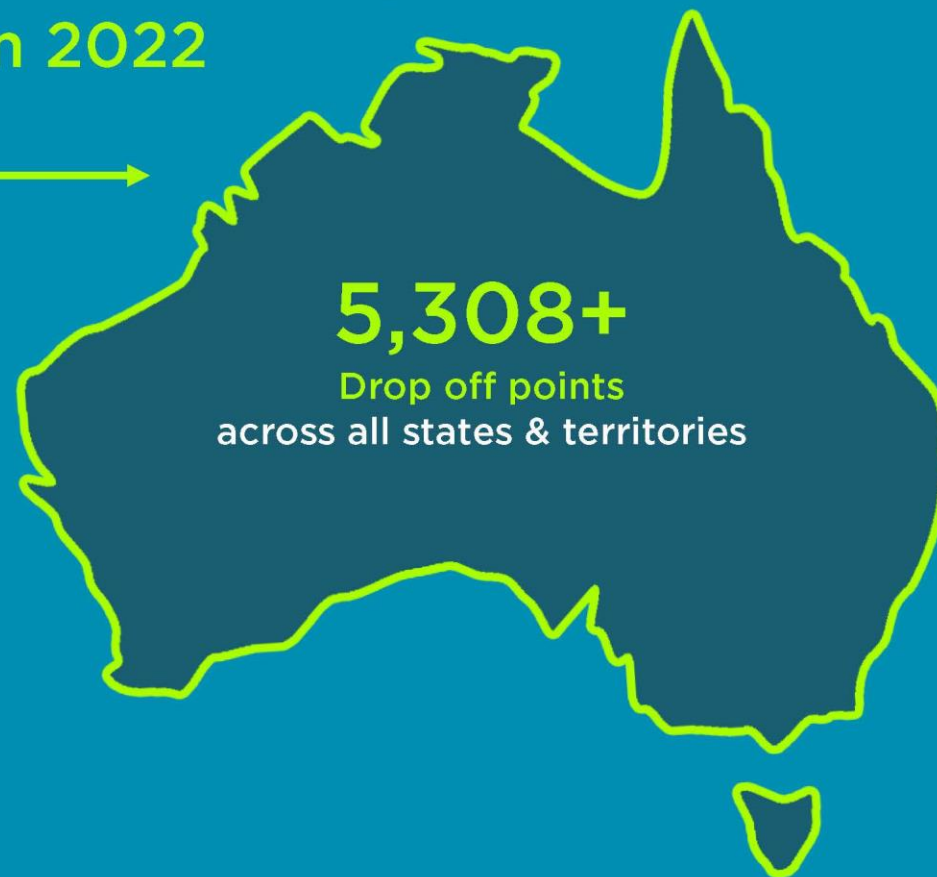
Pre-scheme

Jan 2022

April 2024

-> 45% from 2022

-> 320%



In 2 years, B-cycle has increased Australians access to battery recycling by **>500%**.

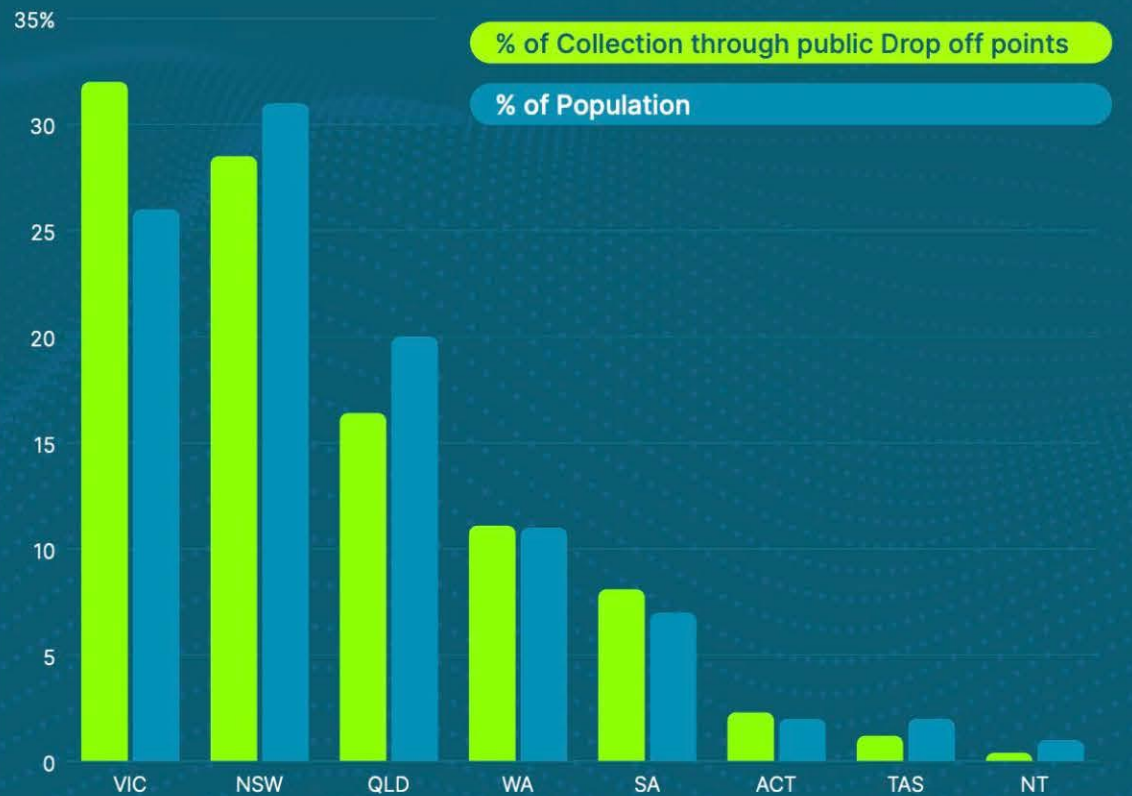
B-cycle collections by the numbers

Weight of batteries collected by jurisdiction 2022 vs 2023 (tonnes)

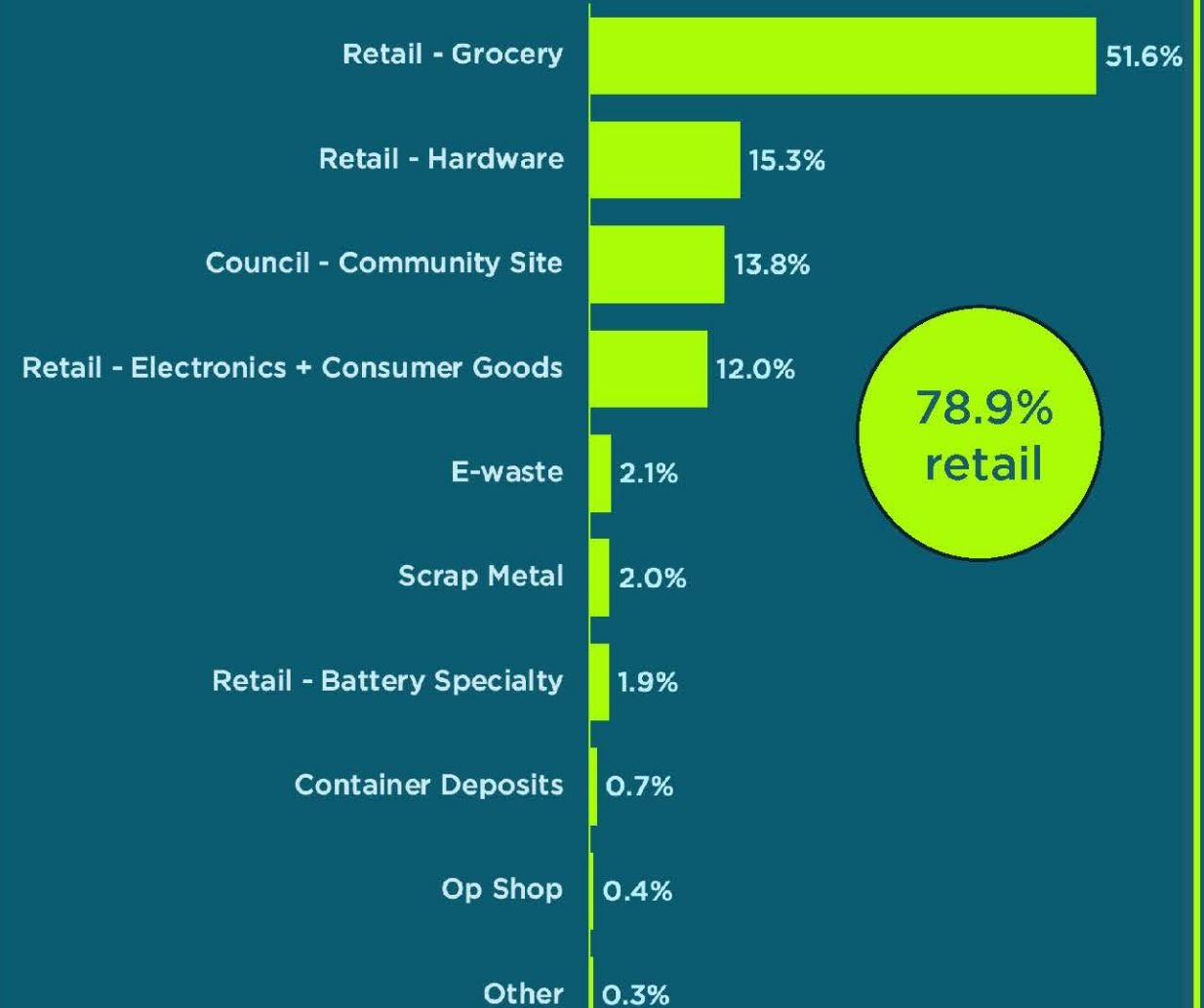


Drop off points as of January 2024

% OF DROP OFF POINTS BY JURISDICTION



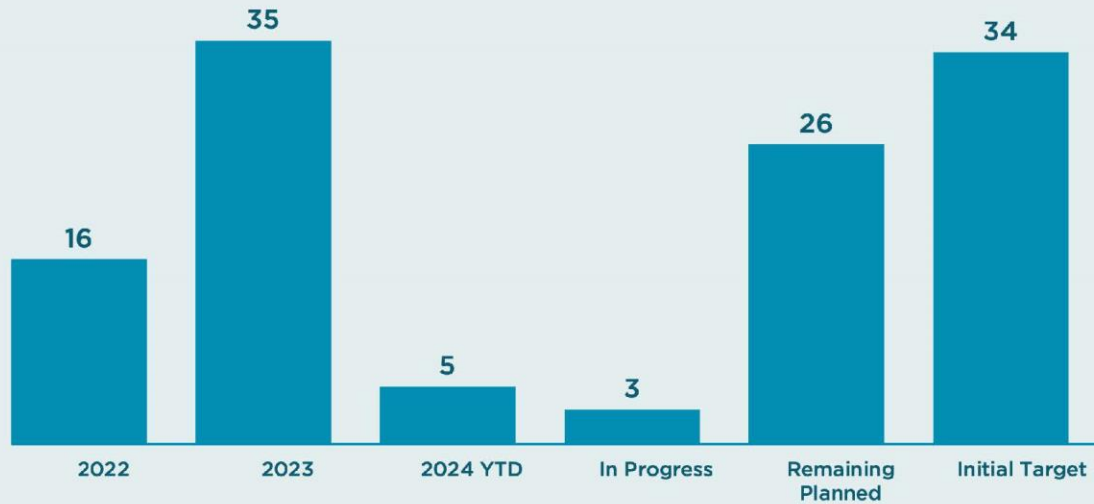
COLLECTIONS BY TYPE OF DoP



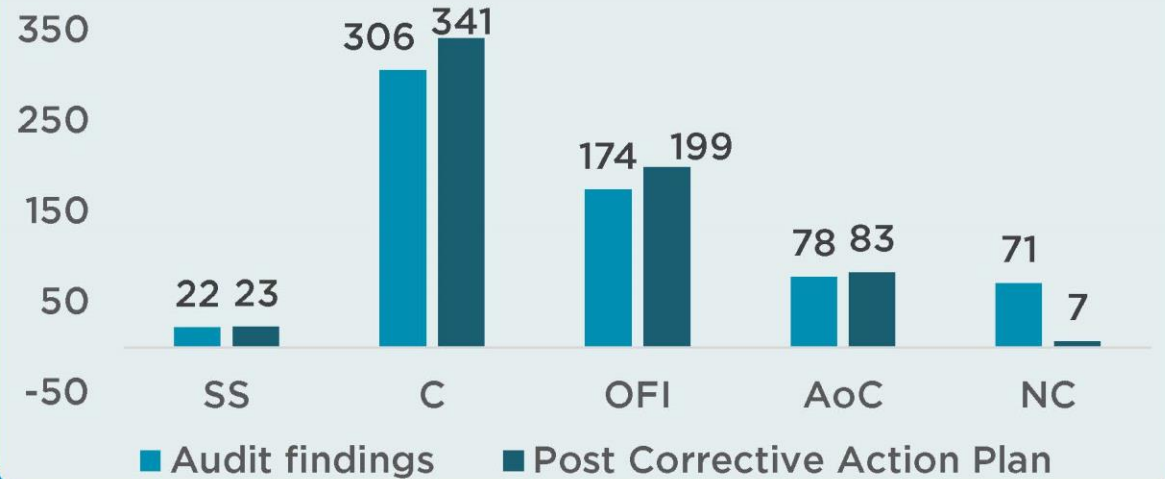


B-cycle independent verification program

INDEPENDENT AUDITS CONDUCTED & PLANNED



FY 2023 AUDIT FINDINGS (COLLECTION NETWORK ONLY) PRE- AND POST CORRECTIVE ACTION



Scheme review

B-cycle model is under review to ensure the model provides suitable financial and other arrangements to ensure success

- + Meet our expectations for success
- + Adapt to fluctuations in the economic environment
- + Respond to the changed risk profile of batteries
 - + Increase diversion and safety

Change is coming



Participation of
importers,
manufacturers &
distributors

(including online sales)

Regulatory reform



Appropriate funding
model to pay for
Scheme operations

Scheme review

Scheme Review: Challenges with the current model

Scheme design based on economics prior to launch & changes are subject to re-authorisation

Free riding and cost of living pressures are impacting levy revenue

Reduced market or reduced market share of participants

Significant increase in costs for collection & recycling activities

Risk mitigation
Consumer Price Index has increased 16.8% since 2019

Commodity prices have dropped

Price of lithium derived black mass has dropped over 62% from \$12,000 to \$4,500 per tonne

The proposal

Modulated Levies

- + Focused on risk mitigation
 - + Button batteries
 - + Alkaline batteries
 - + Lithium batteries
 - + Problematic chemistries
- + Annual levy adjustment to accommodate variabilities
 - + Different chemistry risk level
 - + Collection targets
 - + Changing costs of service delivery

Modulated rebates

- + Annual adjustment based on variations in publicly available market indices:
 - + Consumer Price Index
 - + Commodity prices
- + Modulated collection & recycling rebates
 - + Alkaline/Carbon Zinc/NiMH
 - + Lithium-ion/ BB's/NiCd
 - + Li-Prim/LFP
 - + Other?

Regulatory reform to support scheme review



1. Establish **import controls** on battery quality, repair & replaceability, and online sales.

2. **Support stewardship** - industry development and circular economy through policy, risk mitigation, investment & **procurement** action.

3. **Regulate participation** e.g. Battery Rule under the RaWR Act.

+ **Importers required to participate** in an accreditation scheme (defined in BSC Issues Paper).

+ **Inform liable parties** of their obligation to participate in the accredited scheme.

+ **Hold scheme accountable** for achieving agreed outcomes.

1. **Confirm scope** in consultation with industry & government.

2. **5-year stewardship plan** defining actions to address market failures, funding mechanism(s) and KPIs in consultation with industry & government.

3. Define **governance arrangements:** obligations & legal standing (ACCC authorisation).

4. **Implement the plan** in a safe & transparent manner across the life cycle of the battery

5. **Public annually reporting** on stewardship outcomes and performance measures.

6. **Independent verification** of Scheme outcomes: third party audits and accountability to government and consumers.

1

Import controls to reduce low quality products flooding the market: including online sales (OECD report)

2

All in stewardship to minimise impact on scheme & participating brands

3

Harmonisation regulation: waste levies, classifications, landfill bans (international)

4

Flexibility: Compelling participation & allowing industry action & accountability

5

Transparency
Scheme metrics & reporting
Supply chain performance & due diligence

6

Data sharing: imports, collection rates, recovery rates, & costs.

7

Support safety: facilities, emergency response, collection containers, & controls for damaged batteries

8

Behavioural change in the industry & in the community

The value in working together

Stronger together

Information
sharing

Harmonised
approaches

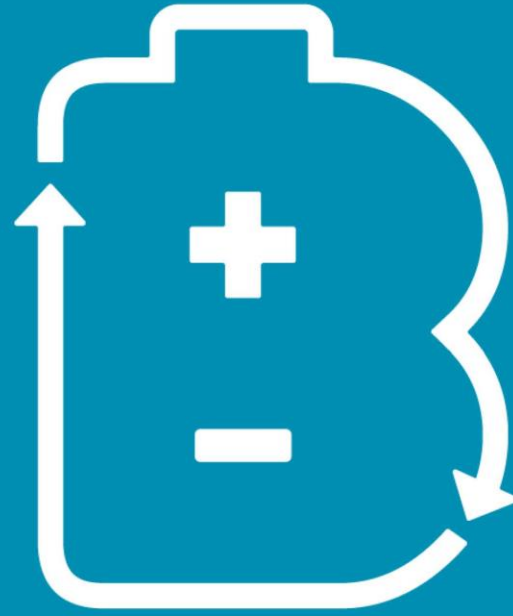
International
benchmarking

Systems and
processes

Discussion



Battery Stewardship Council



Thank you